PUBLIC WORKS AND TRANSPORTATION COMMITTEE

November 1, 2002

Committee Report No.

02-164 As Amended

NOTE:

The committee report was amended by the Council at its meeting on November 1, 2002, by substituting pages 3 and 12 through 14. This

committee report was then adopted as amended.

Honorable Chair and Members of the County Council County of Maui Wailuku, Maui, Hawaii

Chair and Members:

Your Public Works and Transportation Committee, having met on January 9, 2002, October 16, 2002 and October 18, 2002, makes reference to County Communication No. 01-328, from Councilmember Dain P. Kane, relating to the State Commission on Water Resource Management's proposed designation of the Iao Aquifer.

By correspondence dated December 18, 2001, the Council Chair transmitted a letter from Linnel T. Nishioka, Deputy Director, State Committee on Water Resource Management (Commission), attaching a copy of a petition submitted by the Maui Meadows Homeowners Association requesting that the lao Aquifer system be designated as a water management area.

By correspondence dated December 20, 2001, your Committee Chair requested that questions or concerns relating to the proposed designation of the lao Aquifer be submitted in preparation for the January 9, 2002 Committee meeting.

By correspondence dated December 26, 2001, Councilmember Alan Arakawa transmitted a request for information relating to the proposed designation of the lao Aquifer.

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By correspondence dated January 2, 2002, Councilmember Jo Anne Johnson submitted a request for information relating to the proposed designation of the lao Aquifer.

By correspondence dated January 4, 2002, your Committee Chair requested that the Department of Water Supply (DWS) provide a copy of the Department's Rules and Regulations and its related policies.

By correspondence dated January 7, 2002, your Committee Chair requested that the Department of the Corporation Counsel provide a legal opinion on the legality of the County Council allocating water resources and whether it is legally permissible to transport water from East Maui to Central Maui.

By correspondence dated January 7, 2002, Council Vice-Chair Dain Kane transmitted a report entitled "Designation of the Iao and North Waihee Aquifer Systems".

By correspondence dated January 8, 2002, the Director of Water Supply transmitted a copy of the Rules and Regulations for the Department of Water Supply, effective January 7, 1977.

By correspondence dated January 8, 2002, the Department of the Corporation Counsel transmitted a written legal opinion, relating to the allocation of water resources and the transportation of water from East Maui to Central Maui.

At its meeting of January 9, 2002, your Committee met with the Director of Water Supply; a Deputy Corporation Counsel; Linnel Nishioka, Deputy Director of the State Commission on Water Resource Management, Department of Land and Natural Resources (DLNR); Eric Hirano, Engineering Program Manager, State Commission on Water Resource Management, DLNR; Gordon Tribble, District Chief, Water Resources Division, U.S. Geological Survey; and William Myers, former District Chief, Water Resources Division, U.S. Geological Survey.

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Your Committee received correspondence dated January 9, 2002, from Sean Lester and Lucienne deNaie, respectively, providing historical and statistical information about the Iao Aquifer.

Your Committee received testimony from two individuals. One individual recommended that the State Commission on Water Resource Management require all water users, including private water users, to submit monthly water usage reports to the DWS. In addition, the testifier recommended that allocation limits be imposed.

The second individual testified on the rising salinity level and the simultaneous decrease in water level in the lao Aquifer system (lao). The two factors combined resulted in a depletion of the water in the reservoir. The testifier recommended that the Board of Water Supply (BWS) be restructured to eliminate political influence, and that information on water usage from private water users be obtained. Your Committee received written testimony and various informational documents from two other individuals.

The Director of Water Supply provided a brief overview on the matter. He stated that the BWS voted six to one in favor of not designating lao as a water management area. His staff has successfully coordinated efforts with the Commission staff on improving the condition of lao. The Director asserted that the DWS remains willing to assist the Commission with staff, funding, and the development of additional test wells. He further asserted that although the sustainable yield for lao is 20 million gallons per day (mgd), the withdrawal is being maintained at 17.5 mgd. At present, the operation of lao is not in violation of the lao Aquifer Ground-Water Management Rule (Rule), pumping or water quality standards.

The Director reported on the development of the North Waihee aquifer, which is estimated to provide another 4.5 mgd. He further reported that the Kanoa No. 2 and Kupaa No. 1 aquifers are scheduled for pump installation and system design, respectively. The DWS is also focusing its efforts on the development of an observation well and estimates its completion within a year. The Director stated that the DWS' long-range plan is to develop East Maui's infrastructure for the supply of water.

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In 1997, when lao was considered for designation, the rate of withdrawal was 19.5 mgd. Subsequently, withdrawal has been reduced to 17.1 mgd, then slowly rising to 17.5 mgd. The Director stated that a well is scheduled for operation within three weeks, with a second well to begin operation within a year. The additional wells should positively impact the levels of withdrawal from the existing wells. He added that the current level of withdrawal is below the trigger limit provided for in the Rule.

The Safe Drinking Water Act limit for the level of chloride is 250 parts per million (ppm); however, the Rule is more restrictive at 180 ppm. Action is required if chloride levels at more than two stations exceed 180 ppm.

The Director asserted that new meters are not being issued for withdrawal of water from Iao, although there are pending water meter requests with an estimated water usage of .5 mgd.

Mr. Hirano advised your Committee that in 1995 to 1997, lao was considered for designation. The process has once again been initiated with the submittal of a petition from the Maui Meadows Homeowners Association.

Mr. Hirano noted that a Commission Staff Report dated November 14, 2001, stated that the condition of Iao did not change since 1997. Subsequently, however, the DWS has taken positive steps toward recovery of Iao and continues to work cooperatively with the Commission in addressing concerns. Mr. Hirano further noted that the Commission is currently in its investigation stage and is attempting to gather as much data as possible, prior to making a decision.

He stated that both the lao and the Waihee Aquifer (Waihee) systems are being considered for designation since the two systems are hydrologically interconnected.

Mr. Hirano reported that the Commission intends to transmit letters to private users of lao water to inform them of the requirement to submit reports on water usage. The users will also be informed of the \$1,000 a day fine, associated with the non-submittal of the required information.

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In response to your Committee's inquiry, Mr. Hirano explained that should lao be designated, the Commission will require all users to apply for a water use permit. The permitting system will enable the Commission to scrutinize uses of water and will provide a means for limiting usage, indirectly resulting in water conservation and comprehensive planning.

The priority for the Commission is to develop a deep monitor well within the boundaries of Iao. He advised your Committee that the key in addressing the concerns relating to Iao is to import water from other areas.

Mr. Hirano brought forth the concept of a numeric ground-water model, a costly and time consuming effort to gather additional scientific information about an aquifer. He added that the model provides specific information and is meant to be interpreted in conjunction with other relevant data available. He indicated that in 1996, when the Commission was contemplating the need for a model, the cost was \$600,000 for approximately two to three years of work.

Ms. Nishioka surmised that the reason the water and chloride levels may not have rebounded, despite the decrease in water withdrawal, may be due to a lag in recovery time. The decrease in withdrawal occurred fairly recently, within the last year and a half.

Mr. Tribble stated that his Division's role is to provide scientifically-based information for the purpose of water management. He attested that the current condition of lao is not favorable, despite the decrease in withdrawal. The water level continues to decrease and the salinity level continues to increase.

Mr. Tribble advised your Committee of the shortcomings in the methodology used to determine the sustainable yield. He indicated that because of the distribution of wells, the yield of 20 mgd is not accurate. He recommended the following remedial steps to enhance the understanding of the aquifer: (1) expand the scope of data collection to areas adjacent to lao; (2) develop an additional deep monitoring well; and (3) develop a numeric ground-water model. In addition, he recommended that water be brought in from other areas.

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Mr. Tribble explained that the numeric ground-water model is a representation of how water flows within the aquifer. The model simulates the movement and infiltration of water, the mixing of fresh and salt water, and the effect of pumping on water levels, the transition zone and salinity.

Mr. Myers supported Mr. Tribble's comments. He affirmed that the sustainable yield should be decreased if we intend to protect the wells from salt-water intrusion. He informed your Committee that, in 1996, when pumpage was at the 20.33 mgd level, water levels were declining. Currently, at the 17.5 mgd level, water levels are still decreasing. Based on these factors, a sustainable yield of 17.5 mgd continues to be ineffective in improving the condition of Iao. Mr. Myers asserted that water levels need to be decreased until conditions improve. He reiterated and emphasized Mr. Tribble's recommendation that water be transported from other areas.

In response to your Committee's inquiry, Mr. Myers stated that a numeric ground-water model will assist in determining a more accurate rate for the sustainable yield. He further stated that he supports the State's designation of lao, based on the fact that the BWS has no regulatory authority.

Your Committee deferred the matter pending further discussion.

By correspondence dated January 18, 2002, the Council Chair transmitted correspondence from K. Mahealani Davis, relating to the effects of the designation of Molokai as a ground-water management area.

By correspondence dated January 21, 2002, John F. Mink, Mink and Yuen, Inc., transmitted information entitled "The State of the Iao Aquifer System, A Review".

By correspondence dated July 2, 2002, your Committee Chair transmitted the following documents:

1. Public Works and Water Committee Report No. 99-40, dated March 5, 1999, relating to the lao Water Management Rule;

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- 2. Public Works and Water Committee Report No. 99-124, dated July 16, 1999, relating to the proposed amendment to Rule Section 3-1, Rules and Regulations No. 3, of the Rules and Regulations of the Department of Water Supply; and
- 3. A memorandum dated February 22, 2001, from Councilmember Wayne K. Nishiki, transmitting a letter from James V. Williamson, P.E., dated February 21, 2001, commenting on the Central Maui water system.

By correspondence dated September 26, 2002, the Acting Council Chair transmitted a letter from the Deputy Director of the Commission on Water Resource Management, transmitting a document entitled "lao and Waihee Aquifer Systems State Aquifer Codes 60102 and 60103 Ground-Water Management Area Designation Findings of Fact (FOF)".

At its meeting of October 16, 2002, your Committee met with the Director of Water Supply; the Chair of the Board of Water Supply; Roy Hardy, Chief, Regulation Branch, Division of Water Resource Management, DLNR; and Steve Gingerich, Hydrology Engineer, USGS.

Your Committee received testimony from six individuals. One testifier indicated that there appears to be a conflict between certain criteria in the draft FOF. He stated that the draft indicates that an increase in water use would cause the sustainable yield to rise beyond the 90 percent requirement in criterion one; however, criterion three states that regulation is not necessary, and therefore, the criteria is not met for this requirement. According to the testifier, the two criteria are inconsistent. Furthermore, he stated that the community plan references the management of development in relation to the aquifers; however, this matter was not noted in the draft FOF. He also stated that the Commission should consider the management of aquifers without designation.

One testifier suggested that the Commission has the right to request information about withdrawal by public and private "users", and the information should be obtained prior to considering a decision on this matter. Additionally, it was the testifier's understanding that in previous decisions by the Commission on matters relating to designation, the Commission may designate a water

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management area if any one of the criterion is met. She further stated that she supports the designation of the Iao and Waihee by the Commission.

Another testifier provided а report outlining the following information: (1) withdrawal statistics for both Iao and Waihee; (2) identification of wells within the proposed management area; (3) well capacities; and (4) other related information. The focus of her report is to identify that lao is in the best location for developing water resources because of its location, topography and rainfall averages. She indicated that "someone" must be in charge to address problems with the aquifers; therefore, she supports designation. She noted that the management of the aquifers by the Commission should be viewed as a partnership with the State. One testifier stated that the sustainable yields for lao and Waihee are over stated, that water levels have changed over the last three years, and transition zones are below the fresh water lens.

One testifier stated that the BWS decided to make no comment on the designation matter. He clarified that the Commission identifies the DWS as a "user"; therefore, water allocation for a majority of the County would be granted to the DWS. He further stated that the Commission's designation of Iao and Waihee will not impact the ability of the DWS to allocate water to its customers. He noted that the Maui Lani, Wailea 670 and Makena Resort (total build out) projects are included in the future development as identified in the draft FOF.

The final testifier noted that the decrease in withdrawal from Iao has caused the withdrawal at North Waihee to rise. He stated that the Final Supplemental Environmental Impact Statement East Maui Water Development Plan (EMWDP) indicates that the maximum daily usage from the North Waihee aquifer is 4 mgd. He referred to the daily pumping report provided by the DWS, which indicates that water withdrawal from North Waihee is over 5 mgd, therefore exceeding the limits outlined in the EMWDP.

Your Committee received the following items at the meeting:

1. A report entitled "A Review of Iao and Waihee Aquifers Kawaiola Project", dated October 13, 2002, by Maui Tomorrow, submitted by Lucienne deNaie.

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- 2. Correspondence dated October 16, 2002 from James Williamson, Maui Meadows Homeowners Association providing testimony regarding the draft FOF.
- 3. An electronic mail and opinion relating to a Supreme Court of Hawaii decision between Koʻolau Agricultural Company Ltd. v. Commission on Water Resource Management, from Councilmember Wayne K. Nishiki.
- 4. An electronic mail relating to Hawaii Administrative Rule 13-171-7, Ground-water criteria for designation and Hawaii Revised Statutes 174C-41, Designation of water management area, from Councilmember Wayne K. Nishiki.
- 5. A copy of Section 12.1.3 from the Final Environmental Impact Statement for the East Maui Water Development Plan, from Jonathan Starr.
- 6. The County of Maui Department of Water Supply Monthly Source drilling data, from Jonathan Starr.
- 7. Chloride measurement charts for the lao and Waihee aquifers for a three-month moving average, from the Director of Water Supply.

Mr. Hardy provided your Committee with a summary of the draft FOF. He noted that the document identifies 13 major findings as outlined in the executive summary. He noted that the draft FOF now includes the Waihee aquifer (Waihee) in addition to the Iao aquifer. He indicated that the Commission's staff is currently accepting comments on the draft FOF, which will be accumulated and submitted as part of the final FOF to be presented to the Commission for consideration at its November 20, 2002 meeting.

Mr. Hardy indicated that the draft FOF notes that long-range future development as identified in community plans may attributed to a 1.2 mgd deficit at lao. He further stated that criterion one and four have been met within the FOF for lao and criterion one was met for Waihee. The criterion met are as follows:

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174C-44(1)

"Whether an increase in water use or authorized planned use may cause the maximum rate of withdrawal from the ground-water source to reach ninety percent of the sustainable yield of the proposed water management area"; and

174C-44(4).

"Whether rates, times, spatial patterns, or depths of existing withdrawals of ground-water are endangering the stability or optimum development of the ground-water body due to upcoming or encroachment of salt water."

The Chair of the BWS clarified that the sustainable yield for Waihee is 8 mgd. He noted that the withdrawal data for lao and Waihee was transmitted to the Council by correspondence dated August 15, 2002. He further stated that the BWS contracted with Maui Tomorrow to develop water withdrawal data for all users, public and private, for lao and Waihee. He re-affirmed that the Commission has the authority to require withdrawal statistics for private users. The BWS is seeking to develop test wells and an empirical model of lao. He also noted that the development projects outlined in the draft FOF, which impact withdrawal at lao, are anticipated to be developed 5 to 15 years in the future and new water resources should be in place by that time.

Your Committee noted that the term "authorized planned use" as identified in criterion one should be consistent with local land use and zoning requirements set forth in General Plan and community plans. Therefore, only projects included in these plans, which have received necessary land use approvals, should be considered for future demands on water resources.

Your Committee also expressed concerns about determining the amount of withdrawal from private well users. It was suggested that even though the Commission and DWS indicate that private users account for approximately one half of one percent of withdrawal from Iao, both the State and County rely on data supplied by the private user. Therefore, there appears to be no checks and balances to verify the actual water withdrawal from private users.

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In response to an inquiry from your Committee, Mr. Hardy indicated that a decision to designate an aquifer is solely at the discretion of the Commission. He noted that the Commission has "no clear and fast rules" that require a specific number of criteria to be met for the purposes of designation. He further noted that in 1997, when the Commission was previously considering the designation of Iao, four criteria had been met, yet the Commission choose not to designate. However, the Commission indicated that if withdrawal from Iao increased beyond 20 mgd for a 12-month period, the Commission would designate the aquifer as a management area. He further stated that in determining sustainable yields, the Commission distinguishes between optimal potential development of an aquifer and the man-made limitation on withdrawals imposed by existing infrastructure.

Your Committee further noted a Supreme Court of Hawaii decision between Koʻolau Agricultural Company, Ltd. v. Commission on Water Resource Management (Koʻolau case). The Court stated: "Regardless of how many or how few of the criteria are applicable, the Commission shall designate an area as a water management area when it can be reasonably determined that the water resources in an area may be threatened by existing or proposed withdrawals or diversions of water."

Your Committee recessed its meeting to October 18, 2002 in the Council Chamber.

At its reconvened meeting of October 18, 2002, your Committee met with the Director of Water Supply; Roy Hardy, Chief, Regulation Branch, Division of Water Resource Management, DLNR; Gordon Tribble, Division Chief, Water Resource Division, USGS; and a Deputy Corporation Counsel.

To address an inquiry from your Committee, Mr. Hardy stated that once an aquifer is designated, all water users will be required to apply for a permit for an allocation. However, this regulation only applies to the larger users such as the DWS, and not to all water customers. All applications are subject to public review. If negative comments are received regarding the application, the matter will be reviewed by the Commission. Otherwise, the allocations will be authorized. Mr. Hardy also stated that development projects must have land use and planning approvals prior to receiving a water allocation from the

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Commission. He further stated that users, which are granted an allocation and do not use it within four years, may be subject to forfeiture of their water.

In order to clarify a question from your Committee, Mr. Hardy stated that lao and Waihee are part of the same management scheme and are hydraulically connected; however, they have been separated to spread out withdrawal on a regional level. Furthermore, he stated that both North Waihee and South Waihee aquifers each have sustainable yields of 4 mgd; therefore, the draft FOF provides a combined total of 8 mgd as the sustainable yield.

Mr. Tribble, in response to an inquiry from your Committee, stated that the USGS has no immediate plans for drilling a monitor well at either lao or Waihee. He noted that once a monitor well is drilled, observation could take from three to five years to get a proper reading on the impacts the withdrawal has on the aquifer. He further noted that the cost for a monitor well is approximately \$1 million.

Your Committee noted a reference to the Central Maui Joint Venture project in the draft FOF. According to the Director, the matter of water allocation for this project is not being legally challenged. Furthermore, he stated, "The only information we have on that is that Corp. Counsel has said the agreement is still in force until such time as we give the wells back to the joint venture and the agreement is canceled and they run the system themselves. As long as we're running it, we have to comply with the conditions in the agreement. It's those conditions which are being contested and they're not being contested in court. So we still are honoring the commitment up to . . . we're using our standards to determine how much water they get. Once they exceed those standards, we will tell them there is no more water for you and I guess at that point they will either take us to court or they will agree with our decision."

However, your Committee noted that the Chair of the BWS stated during its meeting of October 16, 2002, that, "the Central Maui Joint Venture contractual obligation is not determined." He further stated that, "the agreement has expired and no legal opinion has been rendered on the matter and no litigation is pending."

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In light of contrary information, your Committee requested that the matter be clarified in writing.

Your Committee inquired about the nature of comments the Commission is seeking regarding the draft FOF. Mr. Hardy stated that the Commission will accept any comments, however, factual information is preferred.

Your Committee noted that the draft FOF states that the Rule, which monitors chlorides in the water, has not been enforced by the DWS. Mr. Hardy noted that the rising chloride levels was a concern during the designation review process in 1997; therefore, the BWS adopted the Rule to address the issue raised by the Commission. However, the Director provided your Committee with charts that provided evidence that the DWS has been monitoring chlorides levels since 1999.

Your Committee noted its desire to clarify a reference to the decision of the Supreme Court of Hawaii regarding the Koʻolau case. Your Committee indicated that the Supreme Court decision in the case was procedural in nature and the sole issue being considered was whether the court below the Circuit Court had subject matter jurisdiction over the Koʻolau claim. It was further noted in the decision, the Supreme Court gave the Commission discretion to designate a ground-water aquifer based on however many criteria is met. Your Committee further emphasized that the Supreme Court stated that an aquifer can be designated regardless of the number of criteria met, if it can be reasonably determined that water resources are threatened by existing or proposed withdrawal or diversions.

In response to an inquiry from your Committee, Mr. Hardy stated that comments received after the November 4, 2002 deadline will be accepted, but not included in the final FOF. He further stated that the final FOF should be prepared approximately one week prior to the November 20, 2002, Commission meeting which will be held here on Maui. He further indicated that if the Commission was to delay its review of this matter to December 2002, the meeting would be conducted on Oahu instead of on Maui.

Your Committee noted the sensitivity of the Commission's meeting date and the deadline for receiving comments, especially in view of the upcoming

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General Election. Your Committee further noted that certain charter amendment questions on the General Election ballot, may have an influence in the administration of the DWS and the BWS. Your Committee felt that the results of the election may impact the decision of the Commission on this matter. Your Committee expressed a desire to await the decision of the electorate regarding the charter amendment questions prior to making a decision on the designation of the lao and Waihee aquifers.

Your Committee requested the State Commission on Water Resources Management to consider deferring a recommendation for or against the designation until December after the General Election is over. Your Committee further requested that should the Commission decide to defer making a recommendation until December, that the meeting be held on Maui.

As a result, your Committee voted to take no position on the designation of the Iao and Waihee aquifers as ground-water management areas at this time. However, your Committee recommended that the members of the Council submit their comments to your Committee Chair on the draft FOF, which would be consolidated into a draft letter to the Commission on Water Resource Management for consideration by the Council at its next meeting under a separate County Communication.

Your Committee further recommended that the Council Chair transmit the letter to the Commission setting forth the comments approved by the Council on the draft FOF, prior to the Commission's November 4, 2002 deadline.

Your Committee deferred the matter pending further discussion.

Your Public Works and Transportation Committee RECOMMENDS that the Council DEFER taking a position at this time on the question of designating the Iao and Waihee aquifers as ground-water management areas by the State Commission on Water Resource Management.

Adoption of this report is respectfully requested.

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MICHAEL J. MOLINA	Chair	G. RIKI HOKAMA	Member
DAIN P. KANE	Vice-Chair	PATRICK S. KAWANO	Member
ALAN M. ARAKAWA	Member	CHARMAINE TAVARES	Member
ROBERT CARROLL	Member		